

THE INTRODUCTION OF EUCALYPTUS INTO
CALIFORNIA

H. M. BUTTERFIELD

The exact date of the introduction of the eucalyptus into California has been somewhat in doubt, so the writer in his study of the history of ornamentals has watched carefully for facts which would throw more light on this subject. Certain bits of new evidence have been discovered and are presented here with the hope that the reader will be better informed as to when the eucalyptus was first introduced and what species were involved.

There is little doubt that nurserymen in early days knew a good deal about the introduction of eucalyptus, but after the death of these nurserymen any statement seen in print without supporting evidence cannot be given much weight. For example, in A. J. McClatchie's publication, "Eucalypts Cultivated in the United States,"¹ we find the following statement regarding the introduction of eucalyptus into California, "It is reported that they were introduced into California in 1856 by Mr. Walker, of San Francisco, and in that year 14 species were planted. In 1860 Mr. Stephen Nolan, a pioneer nurseryman of Oakland, being greatly impressed with the rapid growth of these first trees, and also with their evident adaptability to the climate, commissioned a sea captain sailing for Australian ports to secure any Eucalyptus seed he could, at the same time furnishing money with which to make the purchase. A large supply of seed of several species, including *Eucalyptus viminalis* was received from this source, and sown in 1861. Mr. Nolan continued to import seed in quantity for several years, distributing the seedlings widely through the state." These statements intrigued the writer. Who was Mr. Walker and where did he operate? Who was Mr. Nolan? Did these men leave any supporting evidence for such statements as those just quoted?

It was almost too much to hope that a copy of Mr. William C. Walker's catalog would still be in existence today. When the writer sought information on certain trees of *Cedrus deodara* planted in San Francisco before 1860 he consulted Miss Alice Eastwood, of the Academy of Sciences, Golden Gate Park, San Francisco. She modestly mentioned a catalog which she had secured a number of years before from the late Charles Abrahams, nurseryman of San Francisco. Fortunately the writer was able to consult this old catalog, and on the inside of the front cover was found written, "Catalogue of the Golden Gate Nursery—1858 and 1859." It was a simple detail to supply the name of

¹ Bur. of Forestry Bull. 35. U. S. D. A. 1902. 106 p. See p. 18.

the owner of the Golden Gate Nursery²—none other than Mr. William C. Walker, who was mentioned in the quotation above. This is not just an ordinary catalog but evidently the master copy for Mr. Walker's catalog for 1858 and 1859, and all in his own interesting handwriting. At the bottom of page 24 we see listed:

"Eucalyptus Resinifera (Aus.)—splendid weeping for-		est tree 60 ft.	\$10.00
"	argentea	" —argentea foliage 20 ft.	10.00
"	angustifolia	" —dwarf 5 feet	5.00"

Previously the writer had seen eucalyptus mentioned in Mr. Walker's advertisements in the "California Farmer" for 1857 but there was no mention of the species grown. Now we have evidence of what he actually listed in his catalog only a year later. Perhaps Mr. Walker had other species but not enough to justify listing.

Anyone who has introduced seeds from other countries knows that there is a big step between having the seed and selling living plants from these seeds. A nurseryman has to continue buying seeds in such a case as that just mentioned. Mr. Walker was no exception. In the master copy of his catalog for 1858 and 1859 we find a list of seeds received from M. Guilfoyle, Sydney, September 15, 1859. The *Eucalyptus* species mentioned were:

"Eucalyptus robusta	
"	sp. Iron Bark 70 ft.
"	Blue Gum
"	sp. Longifolia
"	nigra. Van Dieman Land
"	globosa " " " (globulus ?)"

Just what is meant by "Iron Bark" is doubtful, yet we know that *Eucalyptus sideroxylon* and *E. leucoxylon* were species of iron barks brought in at an early date and it is likely that Mr. Walker referred to one of these. He thought that *E. globosa* might have been the blue gum (*E. globulus*) and that is a reasonable assumption. *E. robusta* (Swamp Mahogany) is well known. *E. longifolia* (Woollybutt) was listed by others in early days. *E. nigra* is only rarely mentioned in the literature. *E. angustifolia*, which Mr. Walker listed at \$5.00 a plant, is now referred to as *E. amygdalina* var. *angustifolia*, and it is still one of our most beautiful ornamental species of *Eucalyptus*. *E. argentea* listed by Mr. Walker has not yet been associated with any recognized species. *E. resinifera* (Red Mahogany) is too well known today to require special mention.

² For a description of Mr. Walker's nursery see Transactions of the California State Agricultural Society, 1858, p. 266.



PLATE IV. THE CAPTAIN ARAM BLUE GUM (*EUCALYPTUS GLOBULUS*).

Reference was made to Mr. Steven Nolan, who established his nursery in Oakland in 1860 and continued until about 1877. Again the writer was lucky in finding an old catalog of Mr. Nolan's for the year 1871 and can now report exactly what he was growing in those early years. This catalog is in the possession of one of Mr. Nolan's daughters, Mrs. W. F. Snyder (Rose Nolan) of Berkeley. *Eucalyptus* species mentioned in the catalog for 1871 are listed as follows: *E. acemenoides* (White Mahogany Gum); *E. amygdalina* (Black Peppermint Gum); *E. angustifolia* (*E. amygdalina* var. *angustifolia*); *E. calophylla* (Marri or Western Australian Red Gum); *E. cordifolia* (?); *E. cornuta* (Yate-Tree); *E. corynocalyx* (*cladocalyx*) (Sugar Gum); *E. eugenioides* (White Stringybark); *E. fissilis* (*obliqua*); *E. gigantea* (Red Mountain Ash); *E. globulus* (Blue Gum); *E. gunni* (Cider Gum); *E. hemiphloia* (Grey Box); *E. lanceolata* (?); *E. leucorhylon* (White Ironbark); *E. longifolia* (Woollybutt); *E. maculata* (Spotted Gum); *E. marginata* (Jarrah); *E. montana* (*gunni* var. *montana*); *E. obliqua* (Messmate Gum); *E. occidentalis* (Flat-topped Yate); *E. odorata* (Messmate Stringybark); *E. paniculata* (Grey Ironbark); *E. pendula* (?); *E. pilularis* (Blackbutt); *E. piperita* (Peppermint Stringybark); *E. polyanthemos* (Red Box); *E. pulverulenta*; *E. radiata* (*E. amygdalina* var. *radiata*) (River White Gum); *E. robusta* (Swamp Mahogany); *E. stricta* (Scrubby Gum); *E. stuartiana* (Apple-scented Gum); *E. tereticornis* (Grey or Slaty Gum); *E. viminalis* (Manna Gum).

Most of the species just mentioned were listed at 25 cents to 50 cents each. *E. hemiphloia* and *E. stricta* brought 75 cents each. The chances are that not many people bought trees from Mr. Walker at \$5.00 to \$10.00 each, but by 1871 *Eucalyptus globulus* (Blue Gum) had dropped to 10 cents and 25 cents each. That helps explain why so many eucalyptus trees were planted in the seventies but apparently not many in the first years following introduction.

There may be some people who would like to know whether eucalyptus was actually planted in California gardens in the early years and, if so, where. We have a few scattered cases which will show that the eucalyptus was planted throughout California in the more important settlements of that day. A few trees were set out on Telegraph Avenue, Oakland, near the military academy in 1862. George Potter, of Oakland, had a nine-year-old tree in 1873 which was a foot in diameter. A tree planted by Richmond Davis about 1863 at the corner of G and 15th streets, Sacramento, had reached a height of 60 feet in 1875. These plantings are mentioned in the "California Horticulturist," published in San Francisco, 1870 to 1880. Mr. Rose of San Gabriel planted a tree about 1864. In 1872 this tree was 75 feet tall.³ In 1865 John Hall planted three trees of *Eucalyptus*

³ This fact is mentioned in a book "California" by Charles Nordhoff, Harper Bros. N. Y. 1875.

globulus at his place, located about a mile east of Alvarado, at what is now Hall's Station. Mrs. J. E. Branin of San Lorenzo, now in her ninetieth year, recalls seeing the three young trees brought back from San Francisco and planted. Captain Joseph Aram who established a nursery⁴ on Milpitas Road, San Jose, in 1856, evidently planted a tree at an early date. The large specimen of *Eucalyptus globulus* (pl. IV) now growing on the site shows signs of age. Bishop William Taylor of the Methodist Episcopal Church sent seeds of eucalyptus to his wife in Alameda shortly after he went to Australia in 1863. A tree from this seed is still standing at Central and Park avenues, Alameda.

Bishop Taylor has been given credit by some people as being the first to introduce eucalyptus into California. This idea can probably be traced to the following statement made by him⁵: "There were no such trees on the Coast . . . in 1849. I sent the seed from Australia to my wife in California." Evidently some have been led to associate the year 1849 with this shipment of seed by Bishop Taylor when as a matter of fact he did pioneer work in California from 1849 to 1856 and first went to Australia in 1863. By that time the eucalyptus was widely distributed in California, as the above cases taken from publications of that early day indicate. It is true, as Bishop Taylor said, that the eucalyptus was not growing here before 1850. Charles Nordhoff and others have made the same statement. With all of the available facts at hand we can still say that William C. Walker, of the Golden Gate Nursery, Fourth and Folsom streets, San Francisco, is the first definitely on record as having imported seeds of the eucalyptus into California. Stephen Nolan, who established his nursery in 1860, on Telegraph Avenue, Oakland, about where Thirty-fourth Street is now cut through, was the second to make noteworthy importations. No doubt many other people have brought in seed from Australia but these two had the greatest influence and were the first, so far as we know, to make importations.

We should not conclude this early history without mentioning a few of the notable eucalyptus trees still growing in California. The Captain Aram blue gum, on the bank of Coyote Creek, San Jose, near Milpitas Road, is now 95 inches in diameter, breast high, and about 105 feet in height. Trees with a similar diameter have recently been reported from Solano and Orange counties. The J. C. McCubben manna gum in Tulare County, between Reedley and Dinuba, was planted in 1889 and now has a diameter of about 85 inches, breast high. The three blue gums

⁴ For description of this orchard and nursery in 1858, see "Transactions of the California State Agricultural Society," 1858, p. 255.

⁵ See preface of "Story of My Life" by Bishop William Taylor, also leaflet issued by his son William Taylor at time of Centenary Memorial Service, Mountain View Cemetery, May 22, 1921.

planted by John Hall east of Alvarado in 1865 are still standing. The grove of blue gums on the University of California campus, Berkeley, was planted shortly after 1870 and some of these trees are now over 170 feet in height. The date is based upon statements made to the writer by a daughter of Rev. Samuel H. Willey who lived in Berkeley up to 1870, and by Joseph Rowell, archivist of the University, who has lived continuously in Berkeley since September, 1873. Pictures in possession of the writer further confirm the general age of the campus trees. A large manna gum on the campus at Berkeley is 64 inches in diameter, breast high. Several other trees of notable size could be included in this list, but all these belong to a later day. People who have unusual specimens of eucalyptus to report or who have additional facts concerning the early history of the eucalyptus in California are invited to get in touch with the writer or the Extension Forester, College of Agriculture, University of California, Berkeley.

The eucalyptus is now one of the outstanding trees on almost any California landscape where trees have been planted. Many people fail to realize that this tree is not a native. At this late date we can pay our respects to the early pioneers, such as William C. Walker and Stephen Nolan, and hope that some of our present generation also will be inspired to become pioneers in the introduction of worthy exotic trees to supplement our rich native flora.

College of Agriculture, University of California,
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ON THE GENUS *PITYOPUS*

HERBERT F. COPELAND

The genus *Pityopus* has been something of a mystery. The name seems to mean "pine foot." Published by Small twenty years ago, the original description could be overlooked by no student of the saprophytic plants which make up the monotropoid alliance: but there have heretofore been no additions to our knowledge of the plant, nor even any reports of new collections. A single species, *P. oregona*, was described. It was suggested that a plant collected by Eastwood and described by her as *Monotropa californica* might represent the same species. But meanwhile Domin reduced Eastwood's plant (of which he could have seen no material) to a variety of *Monotropa Hypopitys*.

My studies, pursued with much deeply appreciated assistance (more detailed acknowledgements are made below), enable me to list six collections. The suggestion that *Monotropa californica* is identical with *Pityopus oregona* is confirmed. The long aban-